

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A packet communication method of communication employing a packet having a transmission-source address and a destination address, comprising the steps of

a) making a predetermined number of bits of the transmission-source address and a predetermined number of bits of the destination address of a packet be ~~fixed~~ predetermined addresses;

b) a repeating node, which repeats the packet from a transmission-source terminal after first[[,]] converting the ~~fixed~~ predetermined address of the transmission-source address of the received packet into an address of a higher-rank station of said repeating node; and

c) said repeating node converting the ~~fixed~~ predetermined address of the destination address of the received packet into an address of a higher-rank station of a last repeating node for a destination terminal, and transferring the packet.

Claim 2 (Currently Amended): The method as claimed in claim 1, wherein the repeating node, which repeats the packet from the transmission-source terminal first, converts the ~~fixed~~ predetermined address of the transmission-source address of the received packet into an address of a node having a table of an address of a higher-rank station of a last repeating node for each terminal, when the address of the higher-rank station of the last repeating node for the destination terminal is not known, and transfers the packet.

Claim 3 (Currently Amended): The method as claimed in claim 2, wherein the node having the table of the address of the higher-rank station of the last repeating node for each terminal converts ~~the~~ an own address in the destination address of the received packet into the

address of the higher-rank station of the last repeating node for a destination terminal, and transfers the packet.

Claim 4 (Original): The method as claimed in claim 1, wherein:

the higher-rank station of the repeating node, which repeats the packet from the transmission-source terminal first, transfers the received packet without changing the transmission-source address when the address of the higher-rank station in the transmission-source address of the received packet coincides with the address of the own station, and converts the address of the higher-rank station in the transmission-source address of the received packet into the address of the own station when the address of the higher-rank station in the transmission-source address of the received packet does not coincide with the address of the own station, and transfers the packet.

Claim 5 (Original): The method as claimed in claim 4, wherein the higher-rank station of the repeating node, which repeats the packet from the transmission-source terminal first, further instructs the higher-rank station having the transmission-source address originally written in the received packet to transfer a packet addressed to said transmission-source terminal to the own station, when the address of the higher-rank station in the transmission-source address of the received packet does not coincide with the address of the own station, and

further instructs a node having the table of the address of the higher-rank station of the last repeating node for each terminal to update said table.

Claim 6 (Original): The method as claimed in claim 1, wherein the higher-rank station of the last repeating node for the destination terminal transfers the received packet

without changing the destination address, when the address of the higher-rank station in the destination address coincides with the address of the own station and no transfer instructions are given for the destination terminal, and

converts the address of the higher-rank station of the destination address of the received packet into an address of a higher-rank station of the destination of the instructed transfer, when the address of the higher-rank station in the destination address of the received packet coincides with the address of the own station and transfer instructions are given for the destination terminal, and transfers the packet.

Claim 7 (Currently Amended): The method as claimed in claim 1, wherein the higher-rank station of the last repeating node for the destination terminal transfers the packet, when the address of the higher-rank station in the destination address of the received packet does not coincide with the address of the own station[[,]].

Claim 8 (Currently Amended): The method as claimed in claim 1, wherein the last repeating node for the destination terminal converts the addresses of the higher-rank stations in the transmission-source address and destination address of the received packet into the ~~fixed~~ predetermined addresses, and transfers the packet to the destination terminal.

Claim 9 (Currently Amended): The method as claimed in claim 1, wherein, in a case where the destination terminal belongs to another network,

the transmission-source terminal transmits the packet having an address given to the destination terminal as the destination address thereof;

the repeating node, which repeats the packet from the transmission-source terminal first, converts the ~~fixed~~ predetermined address in the transmission-source address of the

received packet into the address of the higher-rank station of said repeating node, and transfers the packet to a gateway station which provides an interface with the other network; and

said gateway station converts the address of the higher-rank station of the received packet into the ~~fixed~~ predetermined address, and transfers the packet into said other network.

Claim 10 (Currently Amended): The method as claimed in claim 1, wherein, in a case where the transmission-source terminal belongs to another network,

said transmission-source terminal transmits the packet having an address given to the destination terminal as the destination address thereof; and

a gateway station which provides an interface with said other network converts the ~~fixed~~ predetermined address in the destination address of the received packet into the address of the higher-rank station of the last repeating node for said destination terminal, and transfers the packet.

Claim 11 (Currently Amended): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

a repeating part repeating the packet from a transmission-source terminal ~~first~~, said packet having a predetermined number of bits of the transmission-source address and a predetermined number of bits of the destination address thereof made to be ~~fixed~~ predetermined addresses;

an address converting part converting the ~~fixed~~ predetermined address of the transmission-source address of the received packet into an address of a higher-rank station of said node apparatus,

said address converting part further converting the ~~fixed~~ predetermined address of the destination address of the received packet into an address of a higher-rank station of a last repeating node for a destination terminal of the packet; and
a transferring part transferring the packet.

Claim 12 (Currently Amended): The node as claimed in claim 11, wherein:

said address converting part converts the ~~fixed~~ predetermined address of the transmission-source address of the received packet into an address of a node having a table of an address of a higher-rank station of a last repeating node for each terminal, when the address of the higher-rank station of the last repeating node for the destination terminal is not known; and

said transferring part transfers the packet.

Claim 13 (Currently Amended): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

an address converting part, which has a table of an address of a higher-rank station of a last repeating node for each terminal, converting an ~~the~~ own address in the destination address of a received packet into the address of the higher-rank station of the last repeating node for a destination terminal of said packet; and

a transferring part transferring the packet.

Claim 14 (Original): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

an address converting part converting an address of a higher-rank station in the transmission-source address of a received packet into an address of the own apparatus when the address of the higher-rank station in the transmission-source address of the received packet does not coincide with the address of the own apparatus, before being transferred through a transferring part; and

said transferring part transferring the received packet without changing the transmission-source address through said address converting part when the address of the higher-rank station in the transmission-source address of the received packet coincides with the address of the own apparatus.

Claim 15 (Original): The node as claimed in claim 14, further comprising an instructing part instructing a higher-rank station having the transmission-source address originally written in the received packet to transfer a packet addressed to said transmission-source terminal to the own apparatus, when the address of the higher-rank station in the transmission-source address of the received packet does not coincide with the address of the own apparatus, and

further instructing a node having a table of an address of a higher-rank station of a last repeating node for each terminal to update said table accordingly.

Claim 16 (Currently Amended): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

an address converting part converting an address of a higher-rank station of the destination address of a received packet into an address of a higher-rank station of a destination of instructed transfer, when the address of the higher-rank station in the

destination address of the received packet coincides with an ~~the~~ address of the own apparatus and transfer instructions are given for the destination terminal, before being transferred through a transferring part; and

said transferring part transferring the received packet without changing the destination address through the address converting part, when the address of the higher-rank station in the destination address coincides with the address of the own apparatus and no transfer instructions are given for the destination terminal.

Claim 17 (Original): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

a determining part determining whether or not an address of a higher-rank station in the destination address of a received packet does not coincide with an address of the own apparatus; and

a transferring part transferring the packet, when the address of the higher-rank station in the destination address of the received packet does not coincide with the address of the own apparatus as a result of the determination result of said determining part.

Claim 18 (Original): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

an address converting part converting addresses of higher-rank stations in transmission-source address and destination address of a received packet into fixed addresses; and

a transferring part transferring the packet to the destination terminal.

Claim 19 (Currently Amended): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, said node providing an interface between different networks, comprising:

- an address converting part converting an address of a higher-rank station of a received packet into a ~~fixed~~ predetermined address; and
- a transferring part transferring the packet into another network.

Claim 20 (Currently Amended): A node apparatus used in a packet communication system of communication employing a packet having a transmission-source address and a destination address, said node providing an interface between different networks, comprising:

- an address converting part converting a ~~fixed~~ predetermined address in the destination address of a received packet into an address of a higher-rank station of a last repeating node for a destination terminal of the packet; and
- a transferring part transferring the packet.

Claim 21 (Currently Amended): A packet communication system of communication employing a packet having a transmission-source address and a destination address, comprising:

- a transmission-side terminal making a predetermined number of bits of the transmission-source address and a ~~fixed~~ predetermined number of bits of the destination address of a packet be predetermined addresses; and
- a repeating node, which repeats the packet from said transmission-source terminal first, converting the ~~fixed~~ predetermined address of the transmission-source address of the received packet into an address of a higher-rank station of said repeating node,

said repeating node converting the ~~fixed~~ predetermined address of the destination address of the received packet into an address of a higher-rank station of a last repeating node for a destination terminal, and transferring the packet.

Claim 22 (Currently Amended): The system as claimed in claim 21, wherein said repeating node, which repeats the packet from the transmission-source terminal first, converts the predetermined address of the transmission-source address of the received packet into an address of a node having a table of an address of a higher-rank station of a last repeating node for each terminal, when the address of the higher-rank station of the last repeating node for the destination terminal is not known, and transfers the packet.

Claim 23 (Original): The system as claimed in claim 22, wherein the node having the table of the address of the higher-rank station of the last repeating node for each terminal converts the own address in the destination address of the received packet into the address of the higher-rank station of the last repeating node for a destination terminal, and transfers the packet.

Claim 24 (Currently Amended): The system as claimed in claim 21, wherein:
the higher-rank station of the repeating node, which repeats the packet from the transmission-source terminal first, transfers the received packet without changing the transmission-source address when the address of the higher-rank station in the transmission-source address of the received packet coincides with an ~~the~~ address of the own station, and
converts the address of the higher-rank station in the transmission-source address of the received packet into the address of the own station when the address of the higher-rank

station in the transmission-source address of the received packet does not coincide with the address of the own station, and transfers the packet.

Claim 25 (Original): The system as claimed in claim 24, wherein the higher-rank station of the repeating node, which repeats the packet from the transmission-source terminal first, further instructs the higher-rank station having the transmission-source address originally written in the received packet to transfer a packet addressed to said transmission-source terminal to the own station, when the address of the higher-rank station in the transmission-source address of the received packet does not coincide with the address of the own station, and

further instructs a node having the table of the address of the higher-rank station of the last repeating node for each terminal to update said table.

Claim 26 (Original): The system as claimed in claim 21, wherein the higher-rank station of the last repeating node for the destination terminal transfers the received packet without changing the destination address, when the address of the higher-rank station in the destination address coincides with the address of the own station and no transfer instructions are given for the destination terminal, and

converts the address of the higher-rank station of the destination address of the received packet into an address of a higher-rank station of the destination of the instructed transfer, when the address of the higher-rank station in the destination address of the received packet coincides with the address of the own station and transfer instructions are given for the destination terminal, and transfers the packet.

Claim 27 (Original): The system as claimed in claim 21, wherein the higher-rank station of the last repeating node for the destination terminal transfers the packet, when the address of the higher-rank station in the destination address of the received packet does not coincide with the address of the own station.

Claim 28 (Original): The system as claimed in claim 21, wherein the last repeating node for the destination terminal converts the addresses of the higher-rank stations in the transmission-source address and destination address of the received packet into the fixed addresses, and transfers the packet to the destination terminal.

Claim 29 (Original): The system as claimed in claim 21, wherein, in a case where the destination terminal belongs to another network,

the transmission-source terminal transmits the packet having an address given to the destination terminal as the destination address thereof;

the repeating node, which repeats the packet from the transmission-source terminal first, converts the fixed address in the transmission-source address of the received packet into the address of the higher-rank station of said repeating node, and transfers the packet to a gateway station which provides an interface with the other network; and

said gateway station converts the address of the higher-rank station of the received packet into the fixed address, and transfers the packet into said other network.

Claim 30 (Original): The system as claimed in claim 21, wherein, in a case where the transmission-source terminal belongs to another network,

said transmission-source terminal transmits the packet having an address given to the destination terminal as the destination address thereof; and

a gateway station which provides an interface with said other network converts the fixed address in the destination address of the received packet into the address of the higher-rank station of the last repeating node for said destination terminal, and transfers the packet.